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Radu Calinescu

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EXAMINER

KEEHN, RICHARD G

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/710,322	<b>Applicant(s)</b> CALINESCU ET AL.	
	<b>Examiner</b> Richard G. Keehn	<b>Art Unit</b> 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 and 60-72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 and 60-72 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/31/2004 and 9/1/2004</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

**Claims 1-28 and 60-72 have been examined and are pending.**

**Claims 71 and 72, presented in dependent form, are independent claims.**

#### ***Election/Restrictions***

1. Claims 29-59 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/16/2008.

#### ***Claim Rejections - 35 USC § 101***

1. Claim 72 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 72 fails to fall within a statutory category on invention. They are directed toward a set of program instructions itself, not a process occurring as a result of executing the program a machine programmed to operate in accordance with the program, nor a manufacture structurally and functionally interconnected with the program in a manner which enables the program to act as a computer component and realize its functionality. It's also clearly not directed to a composition of matter. Therefore it is non-statutory under 35 U.S.C. 101.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. As to Claim 6, the phrase “provides receives user input” is indefinite because it does not indicate whether Applicant intended to provide user input, receive user input or both? Examiner assumes “receives user input” and has based examination on that assumption.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 and 6-28 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,498,786 B1 (Kirkby et al.).

As to Claim 1, Kirkby et al. anticipate a system for allocating resources amongst a plurality of applications, the system comprising:

a plurality of computers connected to one another through a network (Kirkby et al. – Column 3, lines 49-52 and Column 7, lines 34-41 recite the distributed network);

a policy engine for specifying a policy for allocation of resources of the plurality of computers amongst a plurality of applications having access to the resources (Kirkby et

al. – Column 1, lines 6-13 and Column 3, lines 37-47 and Column 6, lines 63-67 and Column 5, lines 19-22 and Column 14, lines 44-46 recite the policy based on proportional fairness and user input to control resource allocation amongst the distributed network's resources);

a monitoring module at each computer for detecting demands for the resources and exchanging information regarding demands for the resources at the plurality of computers (Kirkby et al. – Column 4, lines 3-13 recite bandwidth being allocated by each local controller detecting and taking into account the relative demands of all of the resources in the network); and

an enforcement module at each computer for allocating the resources amongst the plurality of applications based on the policy and information regarding demands for the resources (Kirkby et al. – Column 3, lines 37-52 recite the controller determining how the users' willingness to pay are to be divided between the resources in order to determine the relative demands for the resources. Each resources is then divided based on the policy of fairness based on willingness to pay for resources. A user interface is provided to allow the user to influence the allocation by changing the willingness to pay).

As to Claim 2, Kirkby et al. anticipate the system of claim 1, wherein the resources include communication resources (Kirkby et al. - Column 1, lines 6-13 recite the resources including network bandwidth resources).

As to Claim 3, Kirkby et al. anticipate the system of claim 2, wherein the communication resources include network bandwidth (Kirkby et al. - Column 1, lines 6-13 recite the resources including network bandwidth resources).

As to Claim 6, Kirkby et al. anticipate the system of claim 1, wherein the policy engine provides receives user input for defining an application subject to the policy (Kirkby et al. – Column 3, lines 47-52 recite the user input to modify willingness to pay for resources).

As to Claim 7, Kirkby et al. anticipate the system of claim 6, wherein the monitoring module identifies an application running at a given computer based, at least in part, upon the user input for defining the application (Kirkby et al. – Column 6, lines 49-67 recite the iterative commands executed to reallocate resources based on monitored changes in user input values for defining user willingness to pay to the fairness policy function).

As to Claim 8, Kirkby et al. anticipate the system of claim 7, wherein the monitoring module detects a request for resources by the application at the given computer (Kirkby et al. – Column 6, lines 49-67 recite the iterative commands executed to reallocate resources based on monitored changes in user input values for defining user willingness to pay to the fairness policy function e.g. user is added).

As to Claim 9, Kirkby et al. anticipate the system of claim 6, wherein the user input includes defining components of an application (Kirkby et al. – Column 10, lines 27-41 recite the user defining the time of transfer and amount of bandwidth for the application).

As to Claim 10, Kirkby et al. anticipate the system of claim 9, wherein the components include a selected one of processes, network traffic, and J2EE components (Kirkby et al. – Column 10, lines 27-41 recite the user defining the time of transfer and amount of bandwidth which define network traffic for the application).

As to Claim 11, Kirkby et al. anticipate the system of claim 1, wherein the policy engine receives user input of a policy specifying actions to be taken for allocation of the resources in response to particular conditions (Kirkby et al. – Column 6, lines 49-67 recite the iterative commands executed to reallocate resources based on changes in input values to the fairness policy function).

As to Claim 12, Kirkby et al. anticipate the system of claim 11, wherein the policy includes a command to be run in response to a particular condition (Kirkby et al. – Column 6, lines 49-67 recite the iterative commands executed to reallocate resources based on changes in input values to the fairness policy function).

As to Claim 13, Kirkby et al. anticipate the system of claim 11, wherein the policy includes an attribute indicating when a particular condition of the policy is to be evaluated (Kirkby et al. – Column 6, lines 49-67 recite the attribute of WtP, any change of which invokes the policy to redefine allocations based on the changes in either resources available of user willingness to pay for resources).

As to Claim 14, Kirkby et al. anticipate the system of claim 13, wherein the policy includes an attribute indicating when action is to be taken based upon a particular condition of the policy being satisfied (Kirkby et al. – Column 6, lines 49-67 recite the attribute of WtP, any change of which invokes the policy to redefine allocations based on the changes in either resources available of user willingness to pay for resources).

As to Claim 15, Kirkby et al. anticipate the system of claim 11, wherein the policy specifies priorities of the plurality of applications to the resources (Kirkby et al. – Column 3, lines 45-64 recite user application priority set based on willingness to pay, and the distributed method of resource allocation based on the priorities the users set, based on willingness to pay).

As to Claim 16, Kirkby et al. anticipate the system of claim 15, wherein the enforcement module allocates resources amongst the plurality of applications based, at least in part, upon the specified priorities (Kirkby et al. – Column 3, lines 45-64 recite



user application priority set based on willingness to pay, and the distributed method of resource allocation based on the priorities the users set, based on willingness to pay).

As to Claim 17, Kirkby et al. anticipate the system of claim 1, wherein the policy engine includes a user interface for a user to specify the policy (Kirkby et al. – Column 3, lines 47-49 recite the user interface that affects implementation of the fairness policy).

As to Claim 18, Kirkby et al. anticipate the system of claim 1, wherein the policy engine supports an expression language for policy definition (Kirkby et al. – Column 3, lines 47-49 recites the user expressing his/her willingness to pay which is used to define the fairness policy algorithm).

As to Claim 19, Kirkby et al. anticipate the system of claim 1, wherein the policy engine is a distributed system operating at each of the plurality of computers (Kirkby et al. – Column 3, lines 49-52 recite embodiments of control either by a central control system or distributed control system).

As to Claim 20, Kirkby et al. anticipate the system of claim 1, wherein the monitoring module determines resources available at each computer (Kirkby et al. – Column 4, lines 3-13 recite bandwidth being allocated by each local controller taking into account the relative demands of all of the resources in the network; Alternatively,

Kirkby et al. also recite in Column 3, lines 40-50 that a central controller can be used for monitoring in the non-distributed embodiment).

As to Claim 21, Kirkby et al. anticipate the system of claim 1, wherein the monitoring module determines resource utilization at each computer (Kirkby et al. – Column 3, lines 37-52 recite resource utilization is factored in with user fairness to allocate resources).

As to Claim 22, Kirkby et al. anticipate the system of claim 21, wherein the monitoring module at each computer exchanges resource utilization information amongst the plurality of computers (Kirkby et al. – Column 6, lines 49-67 recite iterative recalculation of network user resources based on demand and capacities).

As to Claim 23, Kirkby et al. anticipate the system of claim 1, wherein the enforcement module allocates network bandwidth amongst said plurality of applications based upon the policy and information regarding demands for the resources (Kirkby et al. – Column 3, lines 37-52 recite the controller determining how the users' willingness to pay are to be divided between the resources in order to determine the relative demands for the resources. Each resources is then divided based on the policy of fairness based on willingness to pay for resources. A user interface is provided to allow the user to influence the allocation by changing the willingness to pay; Column 1, lines 6-13 recite the resources including network bandwidth resource).

As to Claim 24, Kirkby et al. disclose an invention substantially as claimed, including the system of claim 1, wherein the enforcement module allocates processor resources amongst said plurality of applications based upon the policy and information regarding demands for the resources (Kirkby et al. – Column 4, lines 3-8 recite bandwidth allocated based on local and network demands).

As to Claim 25, Kirkby et al. anticipate the system of claim 1, wherein the enforcement module includes an interface for communication with an external module for specifying allocation of resources by said external module (Kirkby et al. – Column 3, lines 49-64 recite distributed control for resource allocation).

As to Claim 26, Kirkby et al. anticipate the system of claim 25, wherein said external module includes a load balancer for load balancing instances of an application (Kirkby et al. - Column 6, lines 63-67 recite balancing the load after changes to the policy function inputs are received).

As to Claim 27, Kirkby et al. anticipate the system of claim 25, wherein said external module comprises a selected one of a router and a provisioning device (Kirkby et al. – Column 5, lines 10-23 and Column 10, lines 9-14 recite the local network managers in the distributed system determining routing information which defines resources needed, and provisions the routing application).

As to Claim 28, Kirkby et al. anticipate the system of claim 1, wherein the enforcement module starts an instance of an application on a given computer based upon the policy and information regarding demands for the resources (Kirkby et al. – Column 5, lines 10-23 and Column 10, lines 9-14 recite the local network managers in the distributed system determining routing information which defines resources needed, and provisions the routing application. The route is defined by applying the policy algorithm based on user priority input).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,498,786 B1 (Kirkby et al.), and further in view of US 5,414,845 (Behm et al.).

As to Claim 4, Kirkby et al. anticipate the system of claim 1.

Kirkby et al. do not explicitly disclose, but Behm et al. disclose an invention substantially as claimed, including wherein the resources include processing resources (Note: Applicant defined processing resources as CPU; Behm et al. - Column 4, lines 2-4 recite distributed execution of programs).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine wherein the resources include processing resources taught by Behm et al., with a plurality of computers connected to one another through a network, a policy engine for specifying a policy for allocation of resources of the plurality of computers amongst a plurality of applications having access to the resources, a monitoring module at each computer for detecting demands for the resources and exchanging information regarding demands for the resources at the plurality of computers, and an enforcement module at each computer for allocating the

resources amongst the plurality of applications based on the policy and information regarding demands for the resources taught by Kirkby et al.

One of ordinary skill in the art at the time the invention was made would have been motivated to implement fair share resource management not only with bandwidth optimization, but also locating, allocating and delivering resources or services while respecting policy requirements for load-balancing, fair share scheduling, and optimal usage of resources (Behm et al. - Column 1, lines 30-36)

As to Claim 5, Kirkby et al. anticipate the system of claim 1.

Kirkby et al. do not explicitly disclose, but Behm et al. disclose an invention substantially as claimed, including wherein the resources include a selected one of memory, disk space, system I/O (input/output), printers, tape drivers, and software licenses (Behm et al. – Column 4, lines 43-58 recite the resource of a software license for Gaussian).

The motivation and obviousness arguments are the same as in Claim 4.

11. Claims 60-64, 66-67 and 70-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,766,348 B1 (Combs et al.), and further in view of US 2003/0069972 A1 (Yoshimura et al.).

As to Claim 60, Coombs et al. disclose an invention substantially as claimed, including a method for allocating resources to a plurality of applications, the method comprising:

receiving user input specifying priorities of the plurality of applications to resources of a plurality of servers, the specified priorities including designated servers assigned to at least some of the plurality of applications (Combs et al. – Column 11, lines 4-6 and 35-36 and Column 10, lines 29-31 recite the user setting service priorities for service applications and setting serving resources for each service application to be performed);

selecting a given application based upon the specified priorities of the plurality of applications (Combs et al. – Column 10, lines 32-34 recite the RAFS performing services in order of priority from highest to lowest);

allocating to the given application any available servers which are designated servers assigned to the given application (Combs et al. – Column 11, lines 35-38 recite the allocation of resources and priority designated to the service task); and

repeating above steps for each of the plurality of applications based on the specified priorities (Combs et al. – Column 10, lines 32-34 recite the RAFS performing services in order of priority from highest to lowest).

Combs et al. do not explicitly disclose, but Yoshimura et al. disclose an invention substantially as claimed, including determining available servers on which the given application is runnable and which are not assigned to a higher priority application

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(Yoshimura et al. – Figure 32, items 3201, 3202, 3209, 3210, 3212, 3214 and 3216 recite the iterative process of adding available application compatible servers until demands are met or until the service level agreement is maximized); and

allocating any additional available servers to the given application until the given application's demands for resources are satisfied (Yoshimura et al. – Figure 32, items 3201, 3202, 3209, 3210, 3212, 3214 and 3216 recite the iterative process of adding available application compatible servers until demands are met or until the service level agreement is maximized).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine determining available servers on which the given application is runnable and which are not assigned to a higher priority application; and allocating any additional available servers to the given application until the given application's demands for resources are satisfied taught by Yoshimura et al., with allocating to the given application any available servers which are designated servers assigned to the given application; and repeating above steps for each of the plurality of applications based on the specified priorities taught by Combs et al.

One of ordinary skill in the art at the time the invention was made would have been motivated to reduce the load of the managers of a data center and a user when a network is changing dynamically (Yoshimura et al. – Page 1, ¶ [0010]).

As to Claim 61, the combination of Combs et al. and Yoshimura et al. discloses an invention substantially as claimed, including the method of claim 60, wherein the



receiving step includes receiving user input of a value for a given application representing relative priority of the given application compared to other applications (Combs et al. – Column 11, lines 4-6 and 35-36 and Column 10, lines 29-31 recite the user setting service priorities for service applications and setting serving resources for each service application to be performed).

As to Claim 62, the combination of Combs et al. and Yoshimura et al. discloses an invention substantially as claimed, including the method of claim 60, wherein the receiving step includes receiving a ranking of the plurality of applications from highest priority to lowest priority (Combs et al. – Column 10, lines 32-34 recite the RAFS performing services in order of priority from highest to lowest).

As to Claim 63, the combination of Combs et al. and Yoshimura et al. discloses an invention substantially as claimed, including the method of claim 62, wherein the step of selecting a given application includes commencing with selection of an application having the highest priority (Combs et al. – Column 10, lines 32-34 recite the RAFS performing services in order of priority from highest to lowest).

As to Claim 64, the combination of Combs et al. and Yoshimura et al. discloses an invention substantially as claimed, including the method of claim 60, further comprising:

powering on a server allocated to an application if the server is in a powered off state (Yoshimura et al. – Figure 32, item 3212 recites turning on a server to be allocated to an application; Item 3207 recites turning off a server de-allocated from an application).

The motivation and obviousness arguments are presented in Claim 60.

As to Claim 66, the combination of Combs et al. and Yoshimura et al. discloses an invention substantially as claimed, including the method of claim 60, further comprising:

adding a server newly allocated to an application to a set of servers across which the application is load balanced (Yoshimura et al. – Figure 32, item 3214 and 3215 recite updating the VLAN table with the added server; Abstract recites VLAN load balancing).

The motivation and obviousness arguments are presented in Claim 60.

As to Claim 67, the combination of Combs et al. and Yoshimura et al. discloses an invention substantially as claimed, including the method of claim 60, further comprising:

removing a server no longer allocated to an application from a set of servers across which the application is load balanced (Yoshimura et al. – Figure 32, item 3212 recites turning on a server to be allocated to an application; Item 3207 recites turning off a server de-allocated from an application; Abstract recites VLAN load balancing).

The motivation and obviousness arguments are presented in Claim 60.

As to Claim 70, the combination of Combs et al. and Yoshimura et al. discloses an invention substantially as claimed, including the method of claim 60, wherein said allocating step includes starting an instance of an application on a given computer (Yoshimura et al. – Figure 32, items 3210-3215 recites the allocation of the server and startup of the application on the allocated server).

The motivation and obviousness arguments are presented in Claim 60.

As to Claim 71, the combination of Combs et al. and Yoshimura et al. discloses an invention substantially as claimed, including a computer-readable medium having processor-executable instructions for performing the method of claim 60 (Combs et al. – Column 2, line38 recites the system).

As to Claim 72, the combination of Combs et al. and Yoshimura et al. discloses an invention substantially as claimed, including a downloadable set of processor-executable instructions for performing the method of claim 60 (Combs et al. – Column 2, line38 recites the system).

12. Claims 65, 68 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Combs et al. and Yoshimura et al. as applied to claim 60 above, and further in view of US 2005/0177755 A1 (Fung).

As to Claim 65, the combination of Combs et al. and Yoshimura et al. discloses an invention substantially as claimed, including the method of claim 60; and

determining whether an application is inactive on a server allocated to the application (Yoshimura et al. – Figure 32, items 3201 and 3202 recite determining the activity of a server).

The combination of Combs et al. and Yoshimura et al. do not explicitly disclose, but Fung discloses an invention substantially as claimed, including initiating a resume script for running the application on the server application is determined to be inactive (Fung - Page 5. ¶ [0038] recites issuing the resume command of an inactive server).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine initiating a resume script for running the application on the server application is determined to be inactive taught by Fung, with allocating any additional available servers to the given application until the given application's demands for resources are satisfied taught by the combination of Combs et al. and Yoshimura et al.

One of ordinary skill in the art at the time the invention was made would have been motivated to wake up an inactive server for use (Fung - Page 5. ¶ [0038]).

As to Claim 68, the combination of Combs et al. and Yoshimura et al. discloses an invention substantially as claimed, including the method of claim 60, further comprising:

determining whether a server no longer allocated to an application (Yoshimura et al. – Figure 32, items 3201 and 3202 recite determining the activity of a server)

The combination of Combs et al. and Yoshimura et al. does not explicitly disclose, but Fung discloses an invention substantially as claimed, including determining whether a server is in a suspend set of servers designated for the application (Fung – Page 2, ¶ [0021] recites nodes having different power modes); and running a suspend script if the server is determined to be in the suspend set of servers (Fung – Page 17, ¶ [0133] recites running the suspend function on a node to put it into the suspend state).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine determining whether a server is in a suspend set of servers designated for the application (Fung – Page 2, ¶ [0021] recites nodes having different power modes); and

running a suspend script if the server is determined to be in the suspend set of servers taught by Fung, with determining whether a server no longer allocated to an application taught by the combination of Combs et al. and Yoshimura et al.

One of ordinary skill in the art at the time the invention was made would have been motivated to provide power management in a multi-server environment (Fung – Page 1, ¶ [0002]).

As to Claim 69, the combination of Combs et al., Yoshimura et al. and Fung discloses an invention substantially as claimed, including the method of claim 68, further comprising:

if a suspend script is executed on the server, determining whether the server should be powered off based on consulting a power management rule (Fung - ¶ [0134] recites placing the service into the Mode 3 state; Page 3, ¶ [0027] recites the decision to place a server into Mode 3); and

powering off the server if it determined that the server should be powered off (Fung - ¶ [0134] recites placing the service into the Mode 3 state).

The motivation and obviousness arguments are the same as in Claim 68.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These include:

- US 2005/0108717 A1 – Hong et al.
- US 2004/0259589 A1 – Bahl et al.
- US 2004/0199633 A1 - Pearson.
- US 2002/0069279 A1 – Romero et al.
- US 6,801,820 B1 – Lilly et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard G. Keehn whose telephone number is 571-270-5007. The examiner can normally be reached on Monday through Thursday, 8:30am - 7:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RGK

/Dohm Chankong/  
Examiner, Art Unit 2152